

ABSTRACT

A priority encoder (PE) for a CAM, comprising a plurality of PE blocks, each receiving a plurality of match results corresponding to data entries in a corresponding data array block and, for determining an address of a highest priority data entry based on a physical location in the data array block during a CAM search-and-compare operation a register for storing a user defined priority value assigned to each PE block and means for evaluating priority values and the address determined by the plurality of PE blocks to select a PE block having the highest priority data entry.